DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Casey, William **Report No:** WIR-029389

Address: 333 Burma Road **Date Inspected:** 01-Apr-2013

City: Oakland, CA 94607

OSM Arrival Time: 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1530 Prime Contractor: American Bridge/Fluor Enterprises, a JV

Contractor: American Bridge/Fluor Enterprises, a JV **Location:** Job Site

CWI Name: CWI Present: Yes No As noted below. **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A **Qualified Welders:** Yes No N/A **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:**

Bridge No: 34-0006 **Component:** Tower

Summary of Items Observed:

Quality Assurance Inspector (QA) William Clifford was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

This QA was present to perform Ultrasonic Testing (UT) inspection verification on Electroslag (ESW) welds inside of the Tower. The purpose of the UT inspection was for the detection of planar indications utilizing both the 'pulse echo' (PE) technique and the 'pitch and catch' (PC) technique for further discontinuity evaluation on ESW welds where previous discontinuities were detected by the single pulse echo search unit.

The data collected from utilizing the P/C technique is for information only and the UT inspection was performed as a joint inspection with ABF/JV Quality Control (QC) Smith Emery NDT personnel. The summary of the joint ultrasonic inspection performed on this date was as follows:

ABF Standard Reference Block: 1mm Hole –

Initial calibration off of IIW Block with one (2) transducer cables plugged in the machine.

Transducer: Benchmark; 2.25 MHz

1mm Hole: PE Decibel rating (+2) / PC Decibel rating (0).

Initial calibration off of IIW Block with one (1) transducer cable plugged in the machine.

Transducer: Benchmark; 2.25 MHz

1mm Hole: PE Decibel rating (+10) / PC Decibel rating (+10).

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ABF Standard Reference Block: Middle Third Notch -

Initial calibration off of IIW Block with one (2) transducer cables plugged in the machine.

Transducer: Benchmark; 2.25 MHz

Middle Third Notch: PE Decibel rating (+11) / PC Decibel rating (-17).

Initial calibration off of IIW Block with one (1) transducer cable plugged in the machine.

Transducer: Benchmark; 2.25 MHz

Middle Third Notch: PE Decibel rating (+15) / PC Decibel rating (-14).

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

Summary of Conversations:

Conversation was relevant to testing performed during this shift.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Gary Thomas (916) 764-6027, who represents the Office of Structural Materials for your project.

| Inspected By: | Clifford, William | Quality Assurance Inspector |
|---------------|-------------------|-----------------------------|
| Reviewed By: | Mertz,Robert | QA Reviewer |